What is claimed is:

1. A process for continuously producing a suction cupped sheet of a predetermined width with a number of suction cups on a resin sheet by means of an apparatus having an endless track including an upper horizontal linear conveying path and a lower horizontal linear conveying path, wherein the starting and end points of the upper conveying path are positioned over the end and starting points respectively of the lower conveying path, the apparatus including a plurality of molds movable along the track, the process comprising the steps of:

extruding a thermoplastic soft resin in the form of a sheet sequentially into the molds being conveyed in the form of a train forward near the starting point of the upper conveying path;

molding the extruded resin into a suction cupped sheet by conveying the molds forward along the upper conveying path until the extruded resin is solidified;

drawing the suction cupped sheet sequentially from the molds near the end point of the upper conveying path to empty the molds;

lowering the emptied molds sequentially from the end point of the upper conveying path to the starting point of the lower conveying path;

returning the lowered molds from the starting point of the lower conveying path to the end point of the lower conveying path; and

lifting the returned molds sequentially from to the end point of the lower conveying path to the starting point of the upper conveying path.

2. A process for continuously producing a suction cupped sheet of a predetermined width with a number of suction cups on a resin sheet by means of an apparatus having an endless track including an upper horizontal linear conveying path and a lower horizontal linear conveying path, wherein the starting and end points of the upper conveying path are positioned over the end and starting points respectively of the lower conveying path, the apparatus including a plurality of molds movable along the track, the process comprising the steps of:

extruding different kinds of thermoplastic soft resin in the form of sheets sequentially into the molds to form a laminated sheet in the molds being conveyed in the form of a train forward through different points near the starting point of the upper conveying path;

molding the laminated sheet into a suction cupped sheet by conveying the molds forward along the upper conveying path until the laminated sheet is solidified;

drawing the suction cupped sheet sequentially from the molds near the end point of the upper conveying path to empty the molds;

lowering the emptied molds sequentially from the end point of the upper conveying path to the starting point of the lower conveying path;

returning the lowered molds from the starting point of the lower conveying path to the end point of the lower conveying path; and

lifting the returned molds sequentially from to the end point of the lower conveying path to the starting point of the upper conveying path.

3. An apparatus for continuously producing a suction cupped sheet of a predetermined width with a number of suction cups on a resin sheet, the apparatus comprising:

a plurality of molds;

a molder having an endless track including a horizontal linear conveying path;

the molder including a mold conveyor for conveying the molds in the form of a train forward along the conveying path;

an extruder including a T-die for extruding a thermoplastic soft resin sequentially into the molds being conveyed along the conveying path, the T-die facing downward and fitted over the conveying path near the starting point of the path;

the molder adapted to mold the extruded resin into a suction cupped sheet by conveying the molds along the conveying path until the extruded resin is solidified;

a forming roll supported near and forward of the extruder for forming the top of the extruded resin into a continuous surface and cooling the

resin;

a drawing mechanism fitted near the end point of the conveying path for drawing the suction cupped sheet sequentially from the molds upward and backward to empty the molds while the molds are conveyed along the conveying path; and

a mold circulator for circulating the emptied molds to the starting point of the conveying path.

4. An apparatus according to Claim 3, and further comprising a temperature controller fitted near the starting point of the conveying path for heating the molds.

5. An apparatus according to Claim 3 or 4, wherein the mold conveyor comprises a plurality of parallel rails extending along the conveying path, a guide rail extending in parallel with the parallel rails, and a drive gear supported near the starting point of the conveying path;

the molds each including wheels supported at least on both sides of the bottom thereof for running on the parallel rails, a guide fixed to the bottom thereof and extending between the front and rear ends thereof for moving along the guide rail, and a rack formed at the bottom thereof and extending between the front and rear ends thereof for engaging with the drive gear;

and wherein, with the drive gear engaging with the rack of the mold at the starting point, the rotation of the gear in one direction gathers the molds end to end in the conveying path and conveys the gathered molds forward along the path.

6. An apparatus according to any one of Claims 3 – 5, and further comprising a cooler fitted rearward of the drawing mechanism for blowing cooling air against the suction cupped sheet in the molds being conveyed forward.

7. An apparatus according to any one of Claims 3 – 6, wherein the mold circulator comprises:

a rear elevator fitted in the rear of the starting point of the conveying path;

a front elevator fitted in front of the end point of the conveying path;

the elevators each including a platform for reciprocating vertically relative to the conveying path, a piston rod, a piston cylinder fixed to the platform for reciprocating the rod in parallel with the conveying path, and a magnet fixed to the forward end of the rod for attracting the molds;

a plurality of return rails extending under and along the conveying

path;

a return guide rail extending in parallel with the return rails; and

a chain conveyor extending in parallel with the return rails;

the chain conveyor including a pin protruding for engaging with the molds.

8. An apparatus according to Claim 7, and further comprising:

two vertical racks fixed relative to the conveying path;

the elevators each further including a drive pinion supported by the associated platform, the pinion engaging with one of the vertical racks;

wherein the rotation of the drive pinion vertically moves the associated platform.

9. An apparatus according to Claim 7, and further comprising:

two drive pinions each supported on a horizontal axis fixed relative to the conveying path;

the elevators each further including a vertical rack fixed to the associated platform, the rack engaging with one of the drive pinions;

wherein the rotation of each of the drive pinions vertically moves the associated platform.

10. An apparatus according to any one of Claims 3 – 9, and further comprising:

a base frame to which the molder is fixed;

an extruder rail adjacent to the starting point of the conveying path;

the extruder rail extending in parallel with the conveying path and fixed relative to the base frame;

the extruder being movable along the extruder rail; and

a screw rod supported rotatably by the base frame and extending in parallel with the conveying path;

the extruder including a nut fixed thereto and engaging with the screw rod, so that the rotation of the rod positions the extruder relative to the molder.

11. An apparatus according to any one of Claims 3 – 9, and further comprising:

a base frame to which the molder is fixed;

an extruder rail adjacent to the starting point of the path;

the extruder rail extending in parallel with the conveying path and fixed relative to the base frame;

the extruder being movable along the extruder rail;

the extruder further including a screw rod supported rotatably

thereby and extending in parallel with the conveying path; and

a nut fixed to the base frame and engaging with the screw rod, so that the rotation of the rod positions the extruder relative to the molder.

12. An apparatus according to any one of Claims 3 – 9, wherein the T-die is divided into two parts.

13. An apparatus according to any one of Claims 3 – 9, wherein the T-die has a resin passage formed therethrough and includes an obstacle orthogonally protrudable into the passage.